

Title (en)

SYSTEMS AND METHODS FOR MULTI-CRITERIA ALARMING

Title (de)

SYSTEME UND VERFAHREN FÜR EINE ALARMIERUNG ANHAND MEHRERER KRITERIEN

Title (fr)

SYSTÈMES ET PROCÉDÉS POUR UNE ALARME MULTICRITÈRES

Publication

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Application

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Abstract (en)

[origin: US2015022339A1] Systems and methods for using multi-criteria state machines to manage alarming states and pre-alarming states of a hazard detection system are described herein. The multi-criteria state machines can include one or more sensor state machines that can control the alarming states and one or more system state machines that can control the pre-alarming states. Each state machine can transition among any one of its states based on sensor data values, hush events, and transition conditions. The transition conditions can define how a state machine transitions from one state to another. The hazard detection system can use a dual processor arrangement to execute the multi-criteria state machines according to various embodiments. The dual processor arrangement can enable the hazard detection system to manage the alarming and pre-alarming states in a manner that promotes minimal power usage while simultaneously promoting reliability in hazard detection and alarming functionality.

IPC 8 full level

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Citation (search report)

- [X1] US 6097288 A 20000801 - KOEPPE JR EUGENE CHARLES [US]
- [X] US 4556873 A 19851203 - YAMADA KIYOSHI [JP], et al
- [A] US 6515283 B1 20030204 - CASTLEMAN DAVID A [US], et al
- [A] WO 2006088842 A1 20060824 - RANCO INC [US], et al
- See also references of WO 2015009924A1

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